

## CLAIMS

1. Stent for application in a body vessel with a tubular support frame (2) comprised of ring segments (3-5) which are sequentially arranged in axial direction and which are formed by segment struts (6, 7) adjoining each other continuously via transitions (8), wherein adjacent ring segments (3-5) are coupled to one another by tie bars (9, 10), characterized in that the segment struts (6, 7) are curved in a wave-like manner and the width ( $B_s$ ) of each segment strut (6, 7), as measured perpendicular to the longitudinal axis ( $L_s$ ) of the struts, increases from its midsection (16) in direction of the transitions (8).
2. Stent according to claim 1, characterized in that first tie bars (9) and the second tie bars (10) are provided, wherein each tie bar (9, 10) has an arm (11) extending in circumferential direction of the support frame (2) and connected on both sides to a transition (8) via axial sections (12, 13 and 14, 15, respectively).
3. Stent according to claim 2, characterized in that the axial sections (12, 13) of the first tie bars (9) are curved in a wave-like manner and the width ( $B_v$ ) of the axial sections (12, 13), as measured perpendicular to the longitudinal axis ( $L_v$ ) of the axial sections (12, 13), increases from the arm (11) in direction of the transitions (8).
4. Stent according to claim 2 or 3, characterized in that the arm (11) is arranged between two adjacent ring segments (3, 4 and 4, 5) spaced from one another at an axial distance (a).

5. Stent according to one of the claims 2 to 4, characterized in that each of the first tie bars (9) extends from the bottom (18) of two interconnected segment struts (6, 7) of a ring segment (3) to the bottom (19) of two interconnected segment struts (6, 7) of an adjacent ring segment (4).
6. Stent according to one of the claims 2 to 5, characterized in that each of the second tie bars (10) extends from the tip (20) of two interconnected segment struts (6, 7) of a ring segment (4) to the tip (21) of two interconnected segment struts (6, 7) of an adjacent ring segment (5).
7. Stent according to one of the claims 2 to 6, characterized in that the first tie bars (9) and the second tie bars (10) are arranged between the ring segments (3, 4 and 4, 5) in offset relationship in circumferential direction (U).
8. Stent according to one of the claims 1 to 7, characterized in that the end surface of each third transition (8) on the terminal ring segments (3) has a widened head end (22) which protrudes axially beyond the adjacent transitions (8).